

## IN THE CLAIMS:

1. (CURRENTLY AMENDED) Optical interconnection module (4) comprising a package (2) provided with at least one optical section (3) interposed between an input optical port (4) of the module and an output optical port (5) of the module, characterized in that the optical section is overmolded in the package and forms an optical waveguide, in that the optical fiber section comprises at least one flared cone (16, 17) getting enlarged at one end of the section and forming an optical output section, and in that the optical section comprises an end lens (18, 19).
2. (CURRENTLY AMENDED) A module according to claim 1, characterized in that the lens is formed by overmolding (20).
3. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 2, characterized in that the package is made of a material (9) that has an optical refraction index (n2) lower than an optical refraction index (n1) of an overmolded material (10) forming the optical section.
4. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 4, characterized in that the lens is made of a same material as that of the optical section.
5. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 4, characterized in that the package comprises a polymer material with efficient thermal behavior such as, for example, an LCP, or a polyimide.
6. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 5, characterized in that the package is metallized (38).
7. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 6, characterized in that the package has a pedestal (13) with gripping grooves.
8. (CURRENTLY AMENDED) A module according to ~~one of the~~ claims 1 to 7, characterized in that the overmolded optical section is curved (37) to lead into a plane.
9. (CURRENTLY AMENDED) An optical ferrule comprising a module according to ~~one of the~~ claims 1 to 8, characterized in that the input optical port has a standardized receptacle (21, 22).

10. (CURRENTLY AMENDED) An optical ferrule comprising a module according to ~~one~~  
~~of the claims 1 to 8~~, characterized in that it comprises an electronic integrated circuit  
~~(30)~~ for the detection or emission of light rays, the integrated circuit being mounted by  
reflow soldering ~~(32)~~ of solder beads on the package.